Antiaggregant treatment versus oral anticoagulation in preventing thrombosis of aorto-coronary bypass grafts

Rothlin, M ; Pfluger, N ; Speiser, K ; Goebel, N

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019 PHENOTHIAZINE ANALOGUES AND PLATELET CALCIUM FLUXES. STRUCTURE-ACTIVITY RELATIONSHIP.

J. Enouf, R. Bredoux and S. Levy-Toledano. Unité INSERM 150, Hôpital Lariboisière, Paris.

It is generally believed that calcium ions play a key role in regulation of platelet functions. One of the main storage pool of calcium in the platelet is the dense tubular system. A platelet membrane fraction which actively sequesters calcium has been isolated and characterized. Phenothiazine analogues have been tested on the characterized calcium uptake into platelet membrane vesicles. The drugs are competitive inhibitors of calcium transport and a relationship between structure-activity has been established. Evidence for two analogues with an apparent Ki of the same order of magnitude than chlorpromazine and trifluoperazine was found. Furthermore a strong correlation was found between the inhibition of the calcium uptake and the inhibition of the ionophore-induced platelet activation which confirms the role of intracellular calcium movements in the regulation of the ionophore-induced platelet activation. The possible action mechanism of these phenothiazine analogues namely on the involvement of calmodulin within the platelet system is discussed.

020 ANTIAGGREGANT TREATMENT VERSUS ORAL ANTICOAGULATION IN PREVENTING THROMBOSIS OF AORTO-CORONARY BYPASS GRAFTS.

M. Rothlin, N. Pfluger, K. Speiser, N. Goebel. University Hospital Zürich, Switzerland.

Aorto-coronary bypass graft occlusion during the early weeks after surgery is caused mainly by thrombosis and oral anticoagulant therapy has been shown to improve graft patency. To compare the effect of Ticlopidine (T) an antiaggregant drug to that of oral anticoagulation by Acenocoumarol (A) in a prospective randomized trial 76 patients (p) received T 2x250 mg daily and 72 p received A according to prothrombine time for the first 3 postoperative months. Graft patency was then tested by angiography. The two p groups were comparable in respect to age, symptoms, ejection fraction, coronary anatomy and number of bypass grafts implanted.

The occlusion rate was 16 % in p with T and 20 % in p with A (n.s.). In small arteries (1-1,5mm) the occlusion rate was 20 % with T and 24 % with A, in larger arteries (2mm or more) occlusion rates were 12 % with T and 16 % with A.

In conclusion the effect of Ticlopidine is at least equal to that of oral anticoagulation of out-patients for the prevention of graft thrombosis during the first 3 postoperative months.